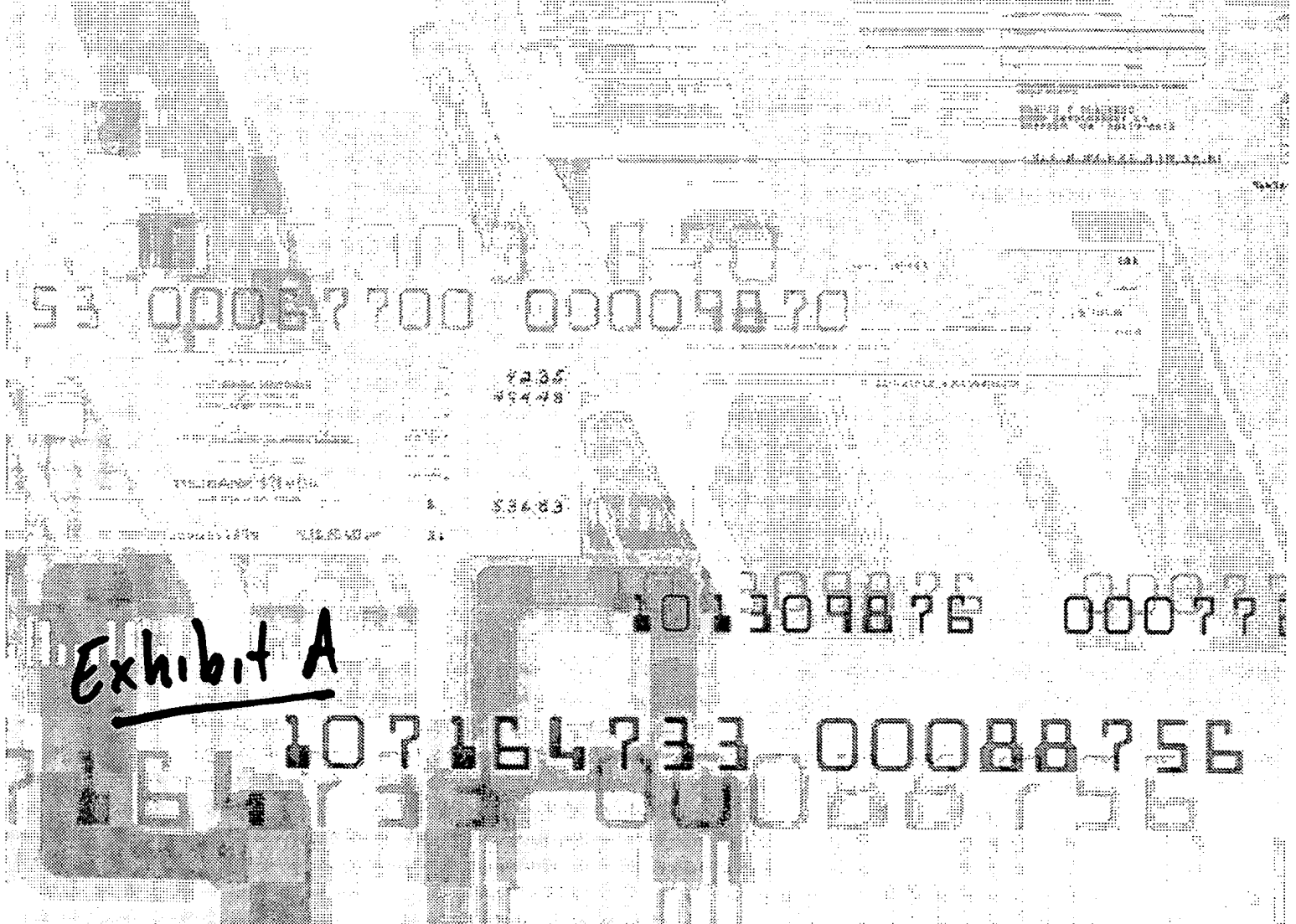
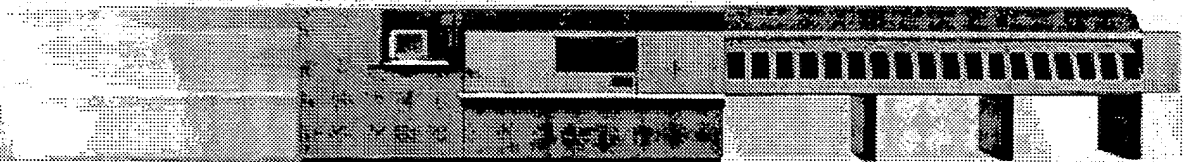
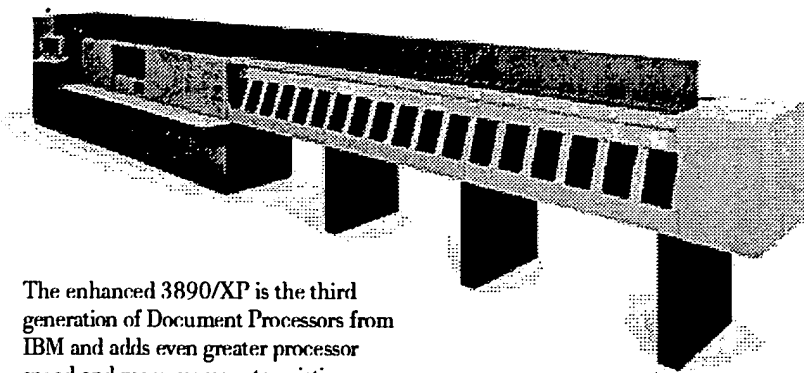




*The Next Generation  
of 3890 Document Processor  
The Enhanced 3890/XP*





The enhanced 3890/XP is the third generation of Document Processors from IBM and adds even greater processor speed and more memory to existing 3890/XP features, as well as offering new features of its own. This improved capability results in greater productivity and significant savings in time and money for your financial institution by:

- Improving overall sorter room throughput
- Offering a higher level of reliability through its Service Director feature
- Providing a base for future applications such as check imaging
- Providing tools to reduce exposure to check fraud
- Strengthening customer service

### *Improved Productivity*

The 3890/XP has substantially increased processing capability and the optional Programmable Endorsing/Item Number Feature gives you the capability to print a unique and changeable endorsement on every document. Information such as the account number, pocket number and statement cycle number can be printed on the back of the document, resulting in fewer operator errors and even greater productivity in check processing departments focused on research adjustments and returned items.

Productivity benefits of the 3890/XP include:

#### **Increased Sorter Capacity During Peak Periods**

- No need to manually change endorsements.
- Automates the collection of operational information.
- Printing pocket numbers on items expedites jam clearance.

#### **Programming Staff Efficiency**

- Additional computing power and increased memory minimizes programming staff time spent in resolving memory and processor constraints.

#### **Identifying Returned Items**

- Printing the depositor's account number in the endorsement helps identify the depositor of each item.

#### **Resolving Research Errors**

- Because the item sequence number is far more legible, the time spent resolving errors is reduced.

#### **Improved Customer Statement Processing**

- Printing the customer statement cycle number on each on-us item reduces the time spent assuring items are handled correctly and eliminates tray mishandling.

#### **Improving Sorter Operator Accuracy and Efficiency**

- Printing the destination pocket number and item sequence number on the document reduces both operator error and the time it takes to clear jams.

#### **Improved Customer Service**

- The more legible item sequence number reduces inquiry time in various departments.

### *Connectivity*

The 3890/XP offers the option to connect to a local area network (LAN), which can then be bridged to a remote host or even a recovery site in the event of a disaster. The XP can also be simultaneously connected to a local server for access to tables or to store statistical data.

### *Maintainability*

IBM's Service Director for the 3890/XP provides convenient and timely service information to IBM Service Engineers by the XP's LAN connection, without disturbing sorter operations. By design, the 3890/XP is easier for IBM to maintain and, therefore, more productive and cost effective for the bank.

### *Support of Strategic Bank Initiatives*

Because of the 3890/XP's expanded capabilities, you can now consider extending your systems and operational capabilities to other strategic areas. Opportunities include:

#### **Imaging**

- As an option, you can add an image camera to the 3890/XP to make it image capable. The 3897 Image Capture System allows you to offer new products, enhance customer service, improve staff productivity and increase fee income.

#### **Merger, Acquisition and Divestiture Support**

- The 3890/XP's improved processor speed and memory provide the flexibility to support merger requirements, such as common bank edits, account number translation tables and tables of divested branches.

#### **Check Fraud Exposure Reduction**

- The large memory in the 3890/XP can contain tables of accounts or even millions of individual items that may be susceptible to fraud. Suspicious items can be out sorted on prime pass and analyzed earlier in the processing cycle, allowing additional time for investigation and timely return.

### *The Bottom Line*

The 3890/XP offers improved productivity and efficiency, provides additional capabilities and better customer service and reduces errors and down time.



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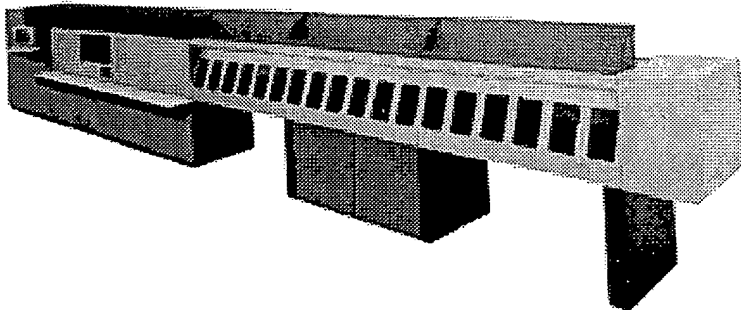
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Delivering high speed, high quality, reliable image and conventional document processing solutions to help you meet both your internal and external customers' needs



## IBM 3897 Model 4 Image Capture System and IBM 3890/XP Enhanced (PCI) Document Processor



### Providing flexibility for immediate image processing value

Despite eager anticipation of a "check-less society," checks continue to be a popular method of payment. Financial organizations need a way to efficiently manage high volumes of checks. Image archiving, either in-house or via nationwide image archive offerings, allows banks to make check images available both internally for back-end processing as well as externally for clients via the Internet or other media.

Adding the IBM 3897 Model 4 Image Capture System to your IBM 3890/XP (PCI) will give you an image processing and capture system that can be tuned by work type, providing consistent, high-quality images for all of your operational needs.

#### IBM 3897 Model 4 Image Capture System Highlights

- *Enhances your IBM 3890/XP™ with image capability*
- *Ensures quality results with high-resolution imaging technology*
- *Provides flexibility with industry-standard compression algorithms*
- *Attaches to the host via multiple options*
- *Minimizes downtime for efficient image capture.*

#### IBM 3890/XP (PCI) Document Processor Highlights

- *Protects your investment in document processing*
- *Boosts productivity with maximum speed and throughput*
- *Improves accuracy with the Programmable Endorsing and Item Numbering feature*
- *Provides flexibility in connectivity and communications to the host processor*
- *Ensures reliability with IBM 3890™ Service Agent*

### Enhancing your IBM 3890/XP with image capability

The IBM 3897 Model 4 can simultaneously capture both front and back images of any document that meets the IBM 3890/XP (PCI) input document specifications. By adding the two components of the 3897 Model 4 Image Capture System, an Image Scanner Module and - an Image Capture Processor - you will be enabled to capture industry standard black and white or gray scale document images at the IBM 3890/XP (PCI) rated transport speed with no degradation to the performance or throughput of the document processor.



### **Capturing high-resolution images**

Images chosen on a per-document basis are captured and sent to a server for storage and further processing. Image resolution options and image quality thresholds are specifiable by the customer via the XP Run Profile. Resolution options are 200 or 240 pel black/white and 80, 100, 200 and 160 pel gray scale. Image quality thresholds are numeric values for total number and subsequent number of image quality suspects. Image quality analysis is performed on each document and images are deskewed real time. In the event that image quality thresholds are exceeded, capture is paused and the operator is notified.

### **Employing industry standard compression algorithms for versatility**

Black and white images are compressed using either CCITT Group 4 or ABIC; gray scale images are compressed using JPEG.

### **Preserving smooth image capture operations with minimal downtime**

The IBM 3897 Model 4 offers numerous safeguards—including powerful built-in diagnostics—to minimize downtime and speed recovery. This improved operational efficiency ultimately ensures effective customer service. The 3897 Model 4 is supported by the predictive capability of IBM 3890™ Service Agent.

### **Installing and connecting the IBM 3897 Model 4 Image Capture System**

The IBM 3897 Model 4 Image Capture System can be installed on your premises to function seamlessly with your IBM 3890/XP (PCI) Document Processor. Host connection can be via S/370™ Parallel or ESCON channel, 10/100 Mbps Fast Ethernet or Gigabit Ethernet.

### **Relying on our experience**

When making your check processing system decisions, you can be confident that IBM hardware and software will provide superior processing performance many years into the future. We can draw on our unmatched, 50-year history in the highly mechanical world of check processing to provide you with knowledgeable and reliable service.

### **IBM 3890/XP Enhanced (PCI) Document Processor**

*- the established world standard for excellence in high speed document processing*

### **Optimizing your investment in document processing**

Impressive speed and proven reliability made the IBM 3890-A/B and XP Document Processors the systems of choice for financial institutions requiring high-volume check processing solutions. With a proven track record of over 25 years, the IBM 3890 Document Processor has proven to be a sound investment. Should image plans not be on your financial institution's horizon at the moment, you can nonetheless benefit immediately from the additional features of the IBM 3890/XP (PCI).

Now, the IBM 3890/XP (PCI) Document Processor, with a 866 MHz<sup>1</sup> Intel® Pentium® III, industry-standard PCI bus and 256 MB of memory brings higher speed and increased memory to advanced XP features. This improved capability results in greater productivity and significant savings in time and money for your financial institution. A higher level of reliability is offered through the IBM 3890™ Service Agent resulting in increased overall sorter room throughput.

### **Maximizing speed and throughput to boost productivity**

The 3890/XP (PCI) executes instructions 50 times faster than previous 3890 models. This high processing speed and the XP (PCI)'s large memory allow for complex sort algorithms and table match processing without impacting document throughput. It will process up to 2,400 six-inch documents per minute into as many as 36 pockets.

### **Improving accuracy with the Programmable Endorsing and Item Numbering feature**

The IBM 3890/XP (PCI) helps improve accuracy by providing an optional programmable- endorse-and- item-number feature that enables the printing of a unique identification on each document. Information such as the pocket number, statement cycle number and account number can be printed on the back of each document resulting in fewer operator errors and greater productivity in such check processing departments as research, adjustments, statements and returned items.

### **Increasing the flexibility of communications options to the host processor**

Attachment of the IBM 3890/XP (PCI) to its host processor is either via a System/370™ Channel and/or TokenRing Network 16/4 Adapters and/or Ethernet. This permits full-function data transfer using IBM OS/2® communications software. Transmission protocol may be either SNA LU 6.2 or TCP/IP.

### **Warranty/Service**

IBM backs your 3890/XP (PCI) Document Processor, 3890/XP upgrade and 3897-model 4 Image Capture System for one full year.

## Ensuring reliability with IBM 3890™

### Service Agent

IBM 3890 Service Agent is designed to improve performance through the use of predictive capability and is available under IBM maintenance contracts. It provides timely service information to IBM Service Engineers via the IBM 3890/XP's LAN connection without affecting sorter operations.

### Other features of the IBM 3890/XP (PCI)

- *Color display (14") and full-size keyboard*
- *Large capacity hopper holds up to 4800 documents while the built in jogger ensures quality document feeding at optimum throughput.*
- *Merge feed station accepts up to 600 divider or separator documents, merging them into the main document stream.*
- *In-line microfilm unit (optional) captures high density, side-by-side, front and back images.*
- *Two six-pocket modules, each holding approximately 900 items, are standard.*
- *High-level programming languages such as C/2+, COBOL/2 and MASM/2, IBM Visual Age C++, etc., 16 bit or 32 bit code, can be used to write sort pattern modules.*
- *Application programming support includes the Check Processing Control System (CPCS) for OS/390 MVS/ESA operating systems; DOSCHECK for VSE operating systems; IBM 3890/SP MVS Host Support Release 2; IBM Item Capture Support as well as XP/STAT, XP/VISION, and XP ToolKit applications from Check Solutions, an IBM Strategic Alliance Business Partner.*

### For more information

To learn more about the IBM 3890/XP (PCI) Document Processor or the IBM 3897 Model 4 Image Capture System, contact your IBM sales representative.

## 3890 A/B, 3890/XP and 3890/XP (PCI) Comparison

Function	3890 A/B	3890/XP	3890/XP (PCI)
Host Attach/ Network Communications	S/370 Channel	S/370 Channel, Token Ring Network (SNA LU 6.2)	S/370 Channel, TRN (SNA LU6.2 or TCP/IP)
Controller	System/360 (cira 1965)	PS/2 16MHz 386DX	866MHz Pentium III Server 325 or faster
Operating System	None	OS/2* 1.3	OS/2* Warp
Communications	None	Communications Manager/2	Communications Server for OS/2 Warp
XP Program Storage	Up to 48K	Minimum 3MB	Up to 12MB
Disk Storage	8" Floppy	70MB Hard Drive	25 GB <sup>2</sup> Hard Drive
Sort Programming Environment	Stacker Control Instructions (SCI)	SCI, 16-bit Native	SCI, 16-bit Native, 32-bit Native
Operator Interface	Lights/Switches	Lights/Switches PS/2 Keyboard Color Display EZ-VU Screens	Lights/Switches PS/2 Keyboard Color Display OS/2 Presentation Manager Screen
Codeline Data Match	Standard	Standard Extended	Standard Extended
Read Record Fields	0-8	0-15	0-15
Maximum Field Length	48 Bytes	256 Bytes	256 Bytes
Image Capture Support	N/A	Featured	Featured
Endorsement	Fixed - Roll-on Reg CC compliant	Programmable per item Fully Reg CC compliant	Programmable per item Fully Reg CC compliant
Native Exception Handling	No	No	Yes
Memory Model	Flat	Selector (Offset)	Flat and/or Selector (Offset)
SPX Language Functions	None	16-bit functions	16-bit and 32-bit functions

<sup>1</sup> MHz only measures internal clock speed, not application performance. Many factors affect application performance.

<sup>2</sup> When referring to hard drive capacity, GB means one billion bytes. Total user-accessible capacity may vary depending on operating environments.

### **3897 Model 1 and Model 4 Image Camera System Comparison**

Device Characteristics	3897 Model 1	3897 Model 4
Image Resolution (per image segment)	240 PEL Bitonal (B/W),	200 PEL B/W with 80, 100 or 160 PEL G/S options, or 240 PEL B/W with 80, 120 or 160 PEL G/S options
Compression Algorithms Supported	ABIC	CCITT G4 or ABIC or B/W; JPEG for Grayscale
Shades of Gray	16	256
Image Segment Format (per image segment)	IOCA	IOCA, TIFF or None (JPEG)
Image Header Information	Standard	Advanced
Hardware Diagnostics after each item captured	No	Yes
Image Suspect Identification	Yes	Advanced
Photosensitivity	Alterable only by IBM Customer Engineer	Altered by Run Profile
Black/White Image Thresholding	IBM Customer Engineer Setting	Altered by Run Profile
Out-of-synchronization Detection	Nominal	Advanced
Image Scanner Options	Front, with Optional Back	Front and Back
3897 Image Capture Processor (Control Unit) Floor Space Requirement	24 Sq. feet, within 100 feet of 3890/XP	None required (may be located (may be located under a 3890/XP Stacker Module)
Host Connection Options	S/370 Parallel or ESCON Channel	S/370 Parallel or ESCON Channel; 100 Mbps Ethernet or Gigabit Ethernet



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